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"Review of K. Lancaster, 'Variety, Equity, and Efficiency,'" *Journal of Economic Literature*, 1980.

JOHN R. WOODBURY—Vice President

Ph.D.	Economics, Washington University (St. Louis)
M.A.	Economics, Washington University (St. Louis)
B.A.	Economics, College of the Holy Cross, *summa cum laude*

Dr. Woodbury's principal fields of expertise are industrial organization, regulation, antitrust, law, and economics. He is an expert in and has published on the economics of antitrust and regulation in broadcasting, cable, telecommunications, and other industries.

PRIOR PROFESSIONAL EXPERIENCE

**Microeconomic Consulting and Research Associates, Inc.
(formerly Competitive Analysis Group, ICF Consulting Associates)**

Principal, 1989–1992. Responsible for providing antitrust and regulatory advice to clients.

Analysis Group

Research Associate, 1989. Responsible for providing antitrust and regulatory advice to clients.

Federal Trade Commission (1985–1989)

Associate Director for Special Projects, Office of the Bureau Director, Bureau of Economics. Responsible for: initiating, conducting, and reviewing economic studies on Commission and other regulatory policies (including telecommunications); drafting speeches for the Chairman; and reviewing Bureau participation in FTC cases.

Assistant Director for Rulemaking, Division of Policy and Evaluation, Bureau of Consumer Protection. Responsible for managing the Commission's Rulemaking Agenda, and drafting recommendations to the Commission from the Bureau Director. Rules reviewed include Holder-in-Due-Course, Vocational Schools, Cooling-Off, and Funeral Rules.

Deputy Assistant Director, Regulatory Analysis, Bureau of Economics. Responsible for conducting or supervising studies or filings before regulatory agencies, including the Federal Communications Commission, the International Trade Commission, and the National Highway Traffic Safety Administration.

National Cable Television Association

Vice President, Department of Research and Policy Analysis, 1983–1985. Responsible for conduct or supervision of studies related to cable television, including consumer costs of the franchising process, deregulation of cable prices, effects of copyright fees on consumers, and the extent of competition with cable TV.

Federal Trade Commission

Senior Economist, Regulatory Analysis Division, Bureau of Economics, 1982–1983. Responsible for broadcasting and telecommunications.

Federal Communications Commission

Chief, Economics Division, Common Carrier Bureau. 1979–1982. Senior economic advisor to Bureau and Commission on common carrier policy. Directed 25 subordinates in policy analysis.

Industry Economist, Network Inquiry Special Staff. Responsible for the analysis of the program supply industry and the competitive impact of new broadcast technology.

Civil Aeronautics Board

Brookings Economic Policy Fellow assigned to Office of Economic Analysis, 1978–1979. Responsible for the development of merger policy, international aviation policy, and service to small communities. Position: Assistant Chief, Policy Analysis Division.

State University of New York at Albany

Assistant Professor of Economics, 1977–1978.

Federal Reserve Bank of New York

Economist, International Research Department, 1975–1977. Responsible for assessing bank-reported capital flows and exchange-rate movements.

Southern Illinois University—Carbondale

Lecturer, 1974–1975.

PUBLICATIONS

"Analyzing Vertical and Horizontal Cross Ownership in Cable Television: the Time Warner-Turner Merger (1996)," in J.E. Kwoka and L.J. White, *The Antitrust Revolution: Economics, Competition, and Policy*, Scott, Foresman. With S. Besen, E. Murdoch, D. O'Brien, and S. Salop. Third Edition, Oxford University Press, 1999.

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"Do Government-Imposed Ownership Restrictions Inhibit Efficiency?" *Working Paper of the Bureau of Economics*, No. 169, 1988.

"Over-the-Air Television and Cable Prices: An Econometric Inquiry." With M. Bykowsky. Served as basis of FCC decision deregulating cable prices, 1985.

"The Effect of Rate Regulation and Franchise Delay on Program Availability." With D. Koran. Comments on FCC Proceeding, 1985.

"Pricing Flexibility and Consumer Welfare: The Deregulation of Basic Cable Rates." NCTA White Paper, 1984.

"Economic Assessment of the Financial Interest and Syndication Rules." With K. Anderson. Comments on FCC Proceeding, 1983.

"Domestic Fixed Satellite Transponders Sales." Comments on FCC Proceeding, 1982.
An Analysis of Television Program Production, Acquisition, and Distribution. With R. Metzger. Network Inquiry Special Staff, Preliminary Report, Federal Communications Commission, June 1990.

"Production Abroad: Theoretical Considerations and Empirical Analysis." Mimeo, 1978.
"Scale Economies in the Airline Industry: A Survey." Mimeo, 1978.

PRESENTED PAPERS

"Market Structure, Program Diversity, and Radio Audience Size." With R. Rogers. Meetings of the Western Economics Association, July 1993.

"The Effects of Rate Deregulation on Cable Subscribers." With K. Baseman. Policy Approaches to the Deregulation of Network Industries: An American Enterprise Institute Conference, October 1990.

"Economic Analysis and Policy Implications of the Financial Interest and Syndication Rule." Telecommunications Policy Research Conference, Airlie House, October 1990.

"The Design and Evaluation of Competitive Rules Joint Ventures for Mergers and Natural Monopolies." With F. Warren-Boulton. American Economic Association Meetings, December, October 1990.

"Do Media Ownership Restrictions Reduce Economic Efficiency?" Telecommunications Policy Research Conference, Airlie House, November 1989.

"The Conflict Between Spectrum Efficiency and Economic Efficiency." With R. Rogers. Telecommunications Policy Research Conference, Airlie House, November 1989.

"Regulation versus Antitrust." Annenberg Conference: The Divestiture Five Years Later, March 1989.

"Regulating Cable Television." Telecommunications Policy Research Conference, Airlie House, September 1987.

"An Empirical Analysis of Television Program Prices." With S. Besen and G. Fournier. Meetings of the Southern Economic Association, November 1981.

"Flexible Exchange Rates and Market Integration." With B. White. Federal Reserve System Conference on Financial Market Research, June 1979.

"Advertising, Price Competition, Market Structure." With A. Arterburn. Meetings of the Southern Economic Association, November 1978.

"The Effects of Exchange Rate Systems on International Capital Market Integration." With B. White. Federal Reserve System Conference on International Research, November 1977.

OTHER PROFESSIONAL ACTIVITIES

Chair, "Competition between Cable Television and Telephone Companies." Telecommunications Policy Research Conference, September 1991.

Discussant, "Competition and Ownership in the Media." Telecommunications Policy Research Conference, September 1991.

Chair, "Spectrum Management Session." Telecommunications Policy Research Conference, Airlie House, September 1988.

Book Review, *Productivity in the United States* by John Kendrick and Elliot Grossman, *Southern Economic Journal*, April 1981.

Discussant, "Deregulation of Telecommunications." Meetings of the Western Economic Association, July 1981.

Referee, *Southern Economic Journal*, *RAND Journal of Economics*, Harvard University Press.

AWARDS

Award for Excellence in Economics (FTC), 1988.
Competition Advocacy Award (FTC), 1987.
Brookings Economic Policy Fellow, 1978–1979.
SUNY Faculty Research Grant, 1978.
NSF Traineeship, 1973–1974.
Finalist, Woodrow Wilson Fellowship Competition, 1971.

APPENDIX 2

The tables to Appendix 2 have been redacted.

EX PARTE OR LATE FILED

RECEIVED

FEB 1 7 2005

Federal Communications Commission
Office of Secretary

February 17, 2005

EX PARTE

Hand Delivery

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, S.W., TW-A325
Washington, DC 20554

Re: **REDACTED -- FOR PUBLIC INSPECTION**
Applications for Consent to the Transfer of Control of Licenses and Authorizations from Nextel Communications, Inc. and its Subsidiaries to Sprint Corporation

WT Docket No. 05-63

Dear Ms. Dortch:

This letter provides notice for the public record that, on behalf of Sprint Corporation and Nextel Communications, Inc., undersigned counsel today transmitted to the Commission certain confidential material filed under seal and subject to the Protective Order adopted by the Wireless Telecommunications Bureau in the above-captioned proceeding.[1] Specifically, the document transmitted under seal is the unredacted version of Attachment B to the Application for Transfer of Control, labeled the "CRA Analysis," which was filed in redacted form by the Applicants on February 8, 2005. The confidential version of this submission is marked "Copying Prohibited" in accordance with paragraph 6 of Appendix A of the Protective Order.

The unredacted, confidential version of the filing is being hand delivered to you under separate cover, as well as to Louis Peraertz, Spectrum and Competition Policy Division, Wireless Telecommunications Bureau, as required by the Protective Order. The confidential version of the filing will be made available for public inspection

---

1 *See Applications for Consent to the Transfer of Control of Licenses and Section 214 Authorizations from Nextel Communications, Inc. and its Subsidiaries to Sprint Corporation*, WT Docket No. 05-63, *Order*, DA 05-423, ¶ 2 and Appendix A (Feb. 16, 2005) ("Protective Order").

Ms. Marlene H. Dortch
February 17, 2005
Page Two

pursuant to the terms of the Protective Order. Arrangements for inspection may be made by contacting the undersigned counsel for Sprint Corporation.

An original and one copy of this filing is submitted herewith in accordance with Section 1.1206(b) of the Commission's rules. Please do not hesitate to contact the undersigned should you have any questions regarding this submission.

Respectfully submitted,

A. Renée Callahan (MGJ)

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Counsel for Sprint Corporation

cc: Louis Peraertz

REDACTED - FOR PUBLIC INSPECTION

Attachment B

CRA Analysis

RECEIVED

FEB 17 2005

Federal Communications Commission
Office of Secretary

JOINT DECLARATION OF STANLEY M. BESEN, STEVEN C. SALOP AND JOHN R. WOODBURY

FEBRUARY 8, 2005

Stanley M. Besen
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Steven C. Salop
Professor of Economics and Law
Georgetown University Law Center

Senior Consultant
Charles River Associates

John R. Woodbury
Vice President
Charles River Associates

Table of Contents

List of Tables

I. Introduction and Qualifications

1. This Declaration, which has been prepared at the request of Sprint Corporation (Sprint) and Nextel Communications, Inc. (Nextel), contains our preliminary analysis of the competitive impact of their proposed merger. Our qualifications for conducting this analysis are as follows:[1]

2. Stanley M. Besen is a Vice President at Charles River Associates, Washington, D.C. Dr. Besen has served as a Brookings Economic Policy Fellow, Office of Telecommunications Policy, Executive Office of the President; Co-director, Network Inquiry Special Staff, Federal Communications Commission; Coeditor, RAND Journal of Economics; and a Senior Economist, RAND Corporation. He currently serves as a member of the editorial board of Economics of Innovation and New Technology. Dr. Besen has taught at Rice University, where he was the Allyn M. and Gladys R. Cline Professor of Economics and Finance, Columbia University, where he was the visiting Henley Professor of Law and Business, and the Georgetown University Law Center, where he was Visiting Professor of Law and Economics. Dr. Besen has published widely on telecommunications economics and policy, intellectual property, and the economics of standards, and has consulted to many companies in the telecommunications and information industries. He holds a Ph.D. in Economics from Yale University.

3. Steven C. Salop is Professor of Economics and Law at the Georgetown University Law Center and a Senior Consultant with Charles River Associates. He is the author of numerous articles on industrial organization economics, antitrust law and policy, and the economic analysis of law. His scholarly articles examine a variety of economic and legal issues involving mergers, joint ventures and partial ownership interests, network markets, exclusionary conduct, and coordinated behavior. Professor Salop has worked on numerous telecommunications matters involving telephony, television program supply and distribution, and the Internet. He has been a visiting professor at MIT and the University of

[1] Our resumes are contained in Appendix 1 to the Declaration.

Pennsylvania and was previously Associate Director for Special Projects, Bureau of Economics, Federal Trade Commission. He holds a Ph.D. in Economics from Yale University.

4. John R. Woodbury is a Vice President at Charles River Associates, Washington, D.C. Dr. Woodbury is an expert in the economics of antitrust and regulation and has provided expert testimony, litigation support, and economic consulting services to a large number of business clients, including many in the telecommunications industry. In addition to having been a Brookings Economics Policy Fellow, he has held the following senior positions: Associate Director, Bureau of Economics and Assistant Director, Bureau of Consumer Protection, Federal Trade Commission; Economics Division Chief, Common Carrier Bureau, Federal Communications Commission; and Research Vice President, National Cable Television Association. He currently serves on the editorial board of the Antitrust Source. He holds a Ph.D. in Economics from Washington University (St. Louis).

5. The provision of wireless telecommunications services in the United States is highly competitive and will remain so after the merger of Sprint and Nextel. Although the two companies have been aggressive and innovative competitors, they continue to be handicapped by their relative lateness to the market and their disadvantages relative to their Regional Bell Operating Company competitors. The merger will offset some of these competitive disadvantages and make the combined company a more formidable competitor to Verizon Wireless and Cingular Wireless LLC (Cingular). The merger will reduce network construction and operating costs and will permit Sprint Nextel to offer innovative wireless services more rapidly, to more subscribers, and at lower cost than otherwise would be the case. At the same time, our analysis indicates that rival wireless carriers will continue to have the incentives and the necessary resources – including spectrum resources – to expand the number of subscribers that they would serve if the merged entity were to attempt to raise prices. As a result, the market will retain

the ability to deter price increases by the merged firm. For this reason, and others, coordinated price increases would also be deterred.

6. The remainder of this Declaration is organized as follows. We first examine the efficiency benefits of the merger. We then turn to the analysis of potential competitive harms. We begin by applying the initial structural screens employed by the Commission in its evaluation of the Cingular-AT&T Wireless transaction. This analysis utilizes subscriber share data acquired by Sprint and Nextel from Telephia and spectrum holding data compiled by Sprint and Nextel.[2] As part of this analysis, we note that Sprint Nextel will have more pro-competitive pricing incentives than its ILEC-affiliated wireless competitors, who have the incentive to take into account the impact of their conduct on intermodal competition and wireline profits. Because of this, the Commission should apply its initial structural screens under somewhat more permissive standards than it used in its review of Cingular-AT&T Wireless. We then evaluate the potential for competitive harms arising from unilateral and coordinated effects on competition in the provision of mobile telephony services and intermodal competition.

7. Based on our preliminary analysis, we conclude that the merger between Nextel and Sprint will likely benefit consumers without reducing the intensity of wireless competition. The merger is likely to increase competition. The merger is unlikely to increase Sprint Nextel's unilateral incentives to raise prices or increase the likelihood of coordinated behavior among the remaining wireless carriers. The same significant constraints on anticompetitive behavior that currently exist will also deter

[2] Telephia tracks information regarding the mobile telecommunications industry, including market share data for mobile service operators in major U.S. markets. This information is commercially available, and Sprint and Nextel enabled us to use these data for the limited purpose of the instant merger application. Because this information is proprietary to Telephia, however, the actual market data are redacted in the public version of the application.

anticompetitive price increases after the merger. Moreover, the substantial efficiencies that will result from the merger are pro-competitive and will benefit wireless customers.

II. The Efficiency Benefits of the Merger

8. In its review of the acquisition of AT&T Wireless by Cingular Wireless, the Commission considered "whether the combination… {was} likely to generate verifiable, merger-specific public interest benefits." In its analysis, the Commission asked "whether the combined entity will be able, and is likely, to pursue business strategies resulting in demonstrable and verifiable benefits to consumers that could not be pursued but for the combination."[3]

9. The Commission went on to emphasize that "the claimed benefit must be transaction- or merger-specific." This means that the claimed benefit "must be likely to be accomplished as a result of the merger but unlikely to be realized by other means that entail fewer anticompetitive effects."[4] Finally, the Commission stated that it "will more likely find marginal cost reductions to be cognizable than reductions in fixed cost."[5]

10. The merger of Sprint and Nextel will result in significant efficiencies. These efficiencies will directly benefit the current retail customers of the two companies as well as customers that the two companies serve indirectly. The efficiencies also will make the merged firm a stronger competitor, so that the subscribers of other carriers will benefit as well.

11. Many of these efficiencies are merger-specific. They could not be achieved, or are less likely to be achieved, or would not be achieved as quickly, without the merger. In addition, many of

[3] *Applications of AT&T Wireless Services, Inc. and Cingular Wireless Corporation For Consent to Transfer Licenses and Applications, Memorandum Opinion and Order,* 19 FCC Rcd 21522, ¶ 201 (2004) (hereinafter *Cingular-AT&T Wireless Order*).

[4] *Id.* ¶ 205.

[5] *Id.*

these efficiencies will reduce the marginal cost of serving subscribers or producing additional minutes of wireless service, and others will directly improve the quality of service received by wireless subscribers.

12. In this section, we discuss a number of the major efficiencies that Sprint and Nextel expect to achieve from the merger and explain why they are merger-specific and why they are likely to result in direct benefits to wireless subscribers. The efficiencies fall into the following major categories: (A) Improved Technology Development and Deployment; (B) Improved Network Coverage; (C) Cost Savings from Increasing the Proportion of "On-Network" Traffic; (D) Reduced Equipment Procurement Costs; (E) Reduced Backhaul Costs; and (F) Development of Services Using 2.5 GHz.

A. <u>Improved Technology Development and Deployment</u>

13. Because the merged entity will have a larger customer base than either of the merging firms, Sprint Nextel will undertake many types of investments, including investments in development and network deployment, which would be uneconomical for either Sprint or Nextel separately. Moreover, Sprint Nextel customers and competition will benefit in the near future from investments in new technologies and services that Sprint and Nextel have already undertaken, because each of the merging firms will be able to gain from investments that the other has already carried out. Although some of these benefits might be achievable through arrangements short of a merger – for example, through joint ventures or licensing arrangements – the ability to achieve them through these alternatives is likely to be more limited and realized more slowly, and the resulting benefits smaller, largely because of difficulties in structuring efficient teaming contracts or license arrangements between competing firms.

14. There are two general ways in which the merger will lead to these benefits. First, the merger permits Sprint and Nextel to avoid cost duplication. This clearly applies to new investments, but each of the merging parties also will benefit from avoiding the costs of duplicative development

activities. Second, many research and development efforts involve costs that are independent of the number of subscribers served. As a result of the merger, some of the projects that would have been uneconomical for either Sprint or Nextel to pursue separately due to high development costs would be economical for the combined firm. In addition, projects that would have been deferred until either Sprint or Nextel alone had gained a critical mass of customers can be pursued more quickly because Sprint Nextel will achieve that critical mass at an earlier date.

15. The most important example of these efficiencies is that the merger will permit the combined company to avoid the costs of independently developing and deploying nationwide next generation wireless networks. Nextel has not yet initiated construction of its network, while Sprint is in the process of deploying its CDMA EV-DO network. The merger will enable Sprint Nextel to enhance and expand the coverage of the CDMA network to serve customers who seek voice, high-performance push-to-talk features, and high-speed data performance. Sprint and Nextel estimate that they will save capital expenditures with a net present value of $4.8 billion after taking into account the necessary incremental investments in the CDMA network.[6]

16. In the absence of the merger, Sprint and Nextel would have had to continue to pursue separate development and deployment efforts. For example, Nextel had already planned to upgrade its network using either a version of the CDMA standard or another packet-switched mobile broadband technology. Sprint has already begun deploying EV-DO in a number of markets in its CDMA network. Both of these efforts would have permitted the carriers to offer new services to their subscribers. The merger will permit Sprint Nextel to offer more of these innovative services more quickly to more

[6] See Joint Declaration of Marc Montagner and Steve Nielsen for details on this and other estimates.

customers and at lower cost than would be the case if the merger did not occur.[7] In particular, Sprint Nextel will deploy CDMA EV-DO, including the more advanced EV-DO Rev. A, more rapidly and over a larger footprint than Sprint would have done on its own.

17. Sprint and Nextel have identified significant savings in technology development and deployment costs among the synergies that they expect from the merger. For example, many costs that Nextel would have had to incur to upgrade its network will be avoided as a result of the merger, since many of these costs have already been incurred by Sprint in connection with its effort to upgrade its own network. Similarly, Nextel has invested in a push-to-talk feature for CDMA by working with Qualcomm to develop QChat. Although some incremental costs will be incurred to add a high performance push-to-talk feature to the Sprint Nextel CDMA network and to provide a gateway to permit customers on the company's CDMA network to communicate through the push-to-talk feature with customers on the iDEN network, those development and deployment costs will be substantially smaller than those that the two companies would have incurred separately.

18. In addition to the efficiencies in network development and deployment, Sprint and Nextel also have identified efficiencies in their information technology and billing, customer care, and sales and marketing platforms. These include savings from avoiding duplication in the costs of developing and maintaining these platforms and savings because one of the merging parties can take advantage of improvements that have already been made by the other. These savings will reduce the costs of acquiring, retaining, and serving subscribers and will enable the merged firm to charge lower prices and

[7] For example, P.J. Howe, "A Tricky Marriage," *Boston Globe*, December 23, 2004, notes that "Nextel customers …could get an offer for high-speed wireless service sooner than they otherwise would…." He then cites Nextel spokesman Russ Wilkerson as indicating "Soon after Sprint closes a merger with Nextel…the combined company would market to Nextel subscribers devices to offer wireless data connections for laptop computers over the Sprint network."

provide better service than could either of the merging companies on its own.[8] Sprint and Nextel have estimated that the net present value of the savings from these sources will be approximately $4.4 billion.

19. These benefits are merger-specific. Without the merger, it would take longer, and be more expensive, for Nextel to deploy a next generation network. Similarly, it would take longer, and be more expensive, for either Sprint or Nextel to achieve the same efficiencies that they can obtain by adopting superior information technology and billing, customer care, and sales and marketing platforms that the other has already developed. It also would be uneconomical for either Sprint or Nextel, on its own, to undertake certain new research and development projects, and to make certain new capital investments. Because Sprint and Nextel will be able to spread costs over a larger customer base than either company could individually, their incentives to invest in the development and deployment of new technologies and services will increase. As a result, the merged firm will be able to offer services that rely on superior, lower cost technologies.

20. Significantly, the same level of benefits cannot be achieved by the alternative of teaming arrangements short of merger, where Sprint and Nextel remain independent competitors. Teaming could, for example, involve arms-length exchanges of technology or a limited joint venture to achieve these goals. However, these alternatives would not lead to the same efficiencies.

21. Teaming would require Sprint and Nextel to agree on how to share the costs and benefits of their joint action. It also would require the parties to devise highly complex contracts to ensure that the scope of work for each party was well defined and to establish their respective financial commitments and other obligations. Finally, these contracts would have to be designed to facilitate efficient

[8] For example, an investment that either improves the quality of customer care, or reduces the incremental cost of providing care to a given customer, will reduce customer retention costs, and thus permit Sprint Nextel to lower the prices that it charges and give it the incentive to do so. An investment that lowers the incremental cost of billing a given customer has a similar effect.

information exchange and investment incentives without, at the same time, disclosing the trade secrets or intellectual property of either party. Otherwise the arrangements would be prone to attenuated incentives, free riding, and opportunistic behavior.

22. Such contracts are difficult to write, particularly where they involve R&D.[9] Virtually by definition, many key contingencies cannot be anticipated in contracts governing cooperative R&D activities among separate firms. In the end, any contract would be incomplete.[10] Moreover, even if all such contingencies could be anticipated, the resulting contract would have to be extraordinarily complex. Difficulties in crafting such contracts could lead the parties to delay or even abandon any attempt to cooperate. The proposed, but unconsummated, Broadband Radio Service (BRS) joint venture between Sprint and Nextel, discussed in more detail below, provides a good example of these difficulties.

23. Even where joint ventures or similar arrangements are pursued, there can be serious disputes between the parties. These disputes, in turn, can result in delays in product development or delivery and increased costs to customers. Thus, teaming arrangements cannot replicate the benefits of merger.

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[9] As Scott Masten notes, "{B}ecause contingent performance is costly to stipulate and even more difficult for courts to administer, contracts typically contain few provisions and, as a result, tend to be inflexible mechanisms for governing exchange. The greater the complexity of the transaction and the level of uncertainty associated with it, the greater the likelihood of being bound to an inappropriate action, and hence the greater the implicit costs of contractual organization." *See* Scott E. Masten, "The Organization of Production: Evidence from the Aerospace Industry", Chapter 10 in Scott E. Masten, ed.: *Case Studies in Contracting and Organization* (New York: Oxford University Press, 1996); reprinted from *Journal of Law & Economics*, vol. 27 (October 1984), p. 190.

[10] For a more general discussion of the difficulties of creating optimal incentives to undertake specialized investments in the context of sequential contracts among contracting parties, see Oliver E. Williamson, *Markets and Hierarchies: Analysis and Antitrust Implications* (New York: Free Press, 1976), p. 94.